

Date: Wed, 2 Nov 94 04:30:22 PST
From: Ham-Digital Mailing List and Newsgroup <ham-digital@ucsd.edu>
Errors-To: Ham-Digital-Errors@UCSD.Edu
Reply-To: Ham-Digital@UCSD.Edu
Precedence: List
Subject: Ham-Digital Digest V94 #362
To: Ham-Digital

Ham-Digital Digest Wed, 2 Nov 94 Volume 94 : Issue 362

Today's Topics:

 9600bd radio's ?? NOT !
 Amateur Packet <-> Linux software.
 APRS newsgroup?
 Bad messages
 Compatible radios with KPC9612
 Decode ACARS with a modem?
How do repeaters work, or is csma/cd possible on packet?
Is Anyone Responsible (Bad Language in Text)
Kenwood TR-9130 (2m) mods?
Packet<>internet gtw's?
 TPK-182
 TPK Version 1.82 NEW RELEASE!

Send Replies or notes for publication to: <Ham-Digital@UCSD.Edu>
Send subscription requests to: <Ham-Digital-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Ham-Digital Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/ham-digital".

We trust that readers are intelligent enough to realize that all text
herein consists of personal comments and does not represent the official
policies or positions of any party. Your mileage may vary. So there.

Date: 2 Nov 1994 09:54:37 -0000
From: esuyw@csv.warwick.ac.uk (Mr R N Garth)
Subject: 9600bd radio's ?? NOT !

In article <2965.18.uupcb@totrbbs.atl.ga.us>,
 steve.diggs@totrbbs.atl.ga.us (Steve Diggs) writes:
>-> From: joopv@etprs.phys.tue.nl ()

>Our experienc has born this out. I have a Kenwood TS811 which has been
>modified for 9600, and we kind of use it as the standard to measure
>other radios against. I have been trying to get the cheaper PLL

>modulated rigs to work for a year and a half - with disappointing
>results. About 3 months ago, James Miller suggested a new approach to
>me: try a "two point modulation" approach, wherein both the VCO AND the
>master reference oscillator are modulated with the 9600 audio. In this
>manner, the cancellation effect of the PLL is eliminated. I have even
>found a company, MX*COM, which makes a chipset to facilitate this
>approach. I haven't had time to try it, but it's on this winter's list
>of projects. If such an approach were to work, it would open 9600 packet
>to MANY, MANY hams who own run-of-the-mill FM only rigs. Any ideas here?
>
>I look forward to your feedback, hoping that we can open this field up a
>lot of creative work!

The two point modulation technique is used in the high speed version of the 144PK Data Radio produced by Wood & Douglas in the UK (144PKD). The technique involves frequency modulation both of the loop oscillator (as normal) and also the reference oscillator, and appears to work very well. As I remember, the only slightly tricky part of setting it up is balancing the mod voltage to the varicap modulating the ref. oscillator with the mod voltage sent to the loop oscillator.

I think this implementation is exactly what 'RUH (James Miller) is talking about, since the 144PKD was designed by W&D in conjunction with him.

Disclaimer: Although I do work for W&D, I am not speaking on behalf of the company and have had little direct involvement with the 144PK project.

Rob

```
-----
| Rob Garth - University of Warwick, Coventry, UK (Electronic Engineering.) |
| ----- |
| Internet address: esuyw@csv.warwick.ac.uk |
| Amateur Radio Callsign: G7ELK |
| Packet radio: G7ELK@GB7WRR (Holidays only.) |
| ----- |
| This is my world, and I am a world leader pretend. |
| This is my life, and this is my time. |
| I have been given the freedom to do as I see fit. |
| Its high time I razed the walls that I've constructed. (R.E.M.) |
| ----- |
```

Date: Mon, 31 Oct 1994 23:19:25 GMT
From: serge@systech.mhs.oz.au (Serge Burjak)
Subject: Amateur Packet <-> Linux software.

Gary Coffman (gary@ke4zv.atl.ga.us) wrote:

: In article <390p3d\$c9u@homer.alpha.net> jachim@myhost.subdomain.domain (Matthew
T. Jachimstal) writes:

..good stuff deleted

: Of course since you're on an open radio channel, don't login
: to any account you want to keep secure since everyone monitoring
: will see the password. Setup a radio login that you wouldn't
: mind *anyone* using, and set permissions accordingly.

Investigate a package called skey, I am trying to find an ftp source. It appears
to generate one time codes from a secret key and can be used on open channels
for just this type of application as a front end to most *nix programs.

Regards,

Serge

VK4BSB

Date: Sat, 29 Oct 94 20:36:00 -0500

From: mike.scheel@slc.davenport.ia.us (Mike Scheel)

Subject: APRS newsgroup?

is there a newsgroup just for users of APRS?

Michael W. Scheel RCMA IA-011

N0NGL [EN41RN] N0NGL@W0BXR.IA.US.NA

INTERNET:mike.scheel@slc.davenport.ia.us

* 1st 2.00b #408 * well, my second favorite thing

--- Silver Xpress Mail System 5.03H1

Internet: mike.scheel@slc.davenport.ia.us (Mike Scheel)

This message was processed by RAuucp from Merlin Systems Inc.

Date: 1 Nov 94 22:38:55 GMT

From: HUTIN@sugar-land.anadrill.slb.COM

Subject: Bad messages

Hi

>1. Who is responsible?

>The originator and first forwarder are located outside the county and not
>subject to FCC rules. F6FNB, located portable in Texas, is the first United
>States station to receive the bulletin. He is neither the originator or first
>forwarder. Trying to then interpret a rule to assign responsibility to him
>when the meaning of "AUTHOR" and "FIRST FORWARDER" is plain is silly.
>Hmmm. No one has any responsibility?

I am W5/F6CNB (not F6FNB) and i run a forwarding only BBS in Texas.
This BBS has forwarding with 15 BBS in North America and also with 15 BBS
outside the USA/CANADA. THIS BBS IS NEVER THE FIRST FORWARDER because
it has no users. (I run a separate BBS for the Houston area users.)
According to the present FCC rules, it cannot be responsible for bad messages.
The message has been written by somebody with an usurpated callsign.
Rejecting this callsign is not a solution.

For your information, the BBS handles more than 1000 messages per day.
The total daily traffic is around 10 Megabytes. Most of the messages are
forwarded within 15mn.

73s Remi W5/F6CNB Sugar Land Texas

PS: I am not portable but i own a reciprocal FCC license

Date: 1 Nov 94 15:26:00 GMT
From: steve.diggs@totrbbs.atl.ga.us (Steve Diggs)
Subject: Compatible radios with KPC9612

-> From: stroup@gauss.usafa.af.mil (Dave Stroup)

-> To all:

->

-> I have just recently purchased a KPC 9612. I am trying to get
-> information on radios that are compatible with the 9600 baud port in
-> the 2m and 70cm bands. Can someone please provide a list of,
-> preferably, the cheapest, radios that fit these criterion?

That would just about have to be the TEKK KS-960. It sells for \$120 plus a
\$25 re-crystal fee. Contact them at 800-521-8355.

Regards,
Steve Diggs

Top Of The Rock BBS - Lilburn, GA
UUCP: tottribbs.atl.ga.us
Phone: +1 404 921 8687

SYSOP: Steve Diggs
Snailmail: 4181 Wash Lee Ct.
Lilburn, GA 30247-7407

Date: 31 Oct 1994 20:26:28 -0600
From: prusso@chop.isca.uiowa.edu (Peter Russo)
Subject: Decode ACARS with a modem?

I was just wondering-

Does anyone know if it is possible to decode ACARS signals transmitted by an airplane with an ordinary 2400 bps modem?
I'd like to use a modem instead of buying an expensive decoder.

Thanks in advance

-Peter Russo
prusso@chop.isca.uiowa.edu

```

      \\\//      \\\//
      (o o)      (o o)
.-oo0-(_) -0oo-----oo0-(_) -0oo-.
| Peter Raphael Russo
| email: prusso@chop.isca.uiowa.edu |
'-----'
      | | | |      | | | |
      8__| |__8      8__| |__8

```

Date: 1 Nov 1994 23:03:13 GMT
From: karn@unix.ka9q.ampr.org (Phil Karn)
Subject: How do repeaters work, or is csma/cd possible on packet?

In article <1994Oct30.234444.19570@ke4zv.atl.ga.us>, gary@ke4zv.atl.ga.us (Gary Coffman) writes:

|> that a collision is taking place. Collision avoidance can be
|> implemented statistically, and is, in TNCs by use of p-persistence
|> backoff algorithms. It doesn't work right unless *everyone* on
|> the channel sets their parameters properly, and hidden terminals
|> still plague the system on non-repeated channels.

This may decrease the chances of collisions, but it doesn't really "avoid" them.

Check out the "MACA" scheme I wrote up for the ARRL CNC in 1990
(London Ont):

ftp://ftp.ucsd.edu/hamradio/packet/arrlcnc/1990/maca.ms.Z (troff -ms)
ftp://ftp.ucsd.edu/hamradio/packet/arrlcnc/1990/maca.ps.z (postscript)

It describes a protocol that really does avoid most collisions in the presence of hidden terminals, at least on data packets. Collisions can still occur on the packets that the protocol uses to contend for the channel, but since these packets are relatively small the throughput impairment should be less. Also, the performance of MACA depends on the capture behavior of the modulation method.

Phil

Date: 2 Nov 94 07:13:48 GMT
From: rwa@aupair.cs.athabascau.ca (Ross Alexander)
Subject: Is Anyone Responsible (Bad Language in Text)

sww@csuohio.edu (Steve Wolf) writes:
>Hank doesn't see a problem with this. Ham radio 1994. No worries.
>Wow.
>A number of people have grave reservations about packet and I am beginning
>to understand why. It is so very simple to trap and hold bad words with
>the software and not only does the network not do it, they don't care when
>it happens.

So, how do you discriminate between human-generated "bad words" (ROTFL)
and machine-generated sequences of the exact same bit pattern?

regards,
Ross ve6pdq

--
Ross Alexander VE6PDQ rwa@cs.athabascau.ca,
(403) 675 6311 rwa@auwow.cs.athabascau.ca

Television is chewing gum for the eyes. -- Frank Lloyd Wright

Date: 2 Nov 1994 11:27:56 GMT
From: erb@inss1.etec.uni-karlsruhe.de (Olaf Erb)
Subject: Kenwood TR-9130 (2m) mods?

Hi,

October and is Now Available...

TPK-182.ZIP Is Available from the F6FBB-SUPPORT BBS in The United States

+1-602-912-0225 300-28.8KB V.34 Protocol All Common Protocols...MNP

TPK-182 is Also Available from The Internet By UUEncoded E-Mail Request:

Send E-MAIL To:

TPK@AZNETIG.STAT.COM

No Subject or Message Necessaary, You will automatically receive an E-M
that contains TPK-182.ZIP UUEncoded

PLEASE NOTE: The File Is NOT Split, So Be Certain Your Mail Server Can
Handle LARGE Pieces of Mail.

TPK-182 Is Also Availabe by SASE Disk Mailer, Enclose (1) One 1.2 or
1.44 Formatted Floppy Disk and a Postage Paid Return Envelope and
Send To:

Daniel J. Meredith N7MRP
P.O. Box 44563
Phoenix, Az 85064-4563

Enjoy TPK-182!!!

73 de Dan N7MRP@N7MRP.AZ.USA.NA
White Page-World Server Station...
/EX

\-----/

Arizona Network Intertie Group
"Serving Az's Digital Needs Since 1993"

Daniel J. Meredith - N7MRP
P.O. Box 44563
Phoenix, Arizona
85064-4563

Voice: +1-602-809-7384
Fax : +1-602-956-2566
BBS : +1-602-912-0225

List Owner: F6fbb-List@Stat.Com
Arizona Amateur Radio Packet Coordinator

Date: Mon, 31 Oct 1994 04:23:26 GMT
From: daniel.meredith@aznetig.stat.com (Daniel Meredith)
Subject: TPK Version 1.82 NEW RELEASE!

Hello All,
The LONG Awaited release of TPK-182 has occured...It was released
this October and is Now Available...

TPK-182.ZIP Is Available from the F6FBB-SUPPORT BBS in The United States
at:

+1-602-912-0225 300-28.8KB V.34 Protocol All Common Protocols....

TPK-182 is Also Available from The Internet By UUEncoded E-Mail Request:

Send E-MAIL To:

TPK@AZNETIG.STAT.COM PART 1
TPK2@AZNETIG.STAT.COM PART 2

No Subject or Message Necessaary, You will automatically receive an
E-Mail that contains TPK-182.ZIP UUEncoded

PLEASE NOTE: Be Certain Your Mailer Can Handle Large E-Mails...

TPK-182 Is Also Availabe by SASE Disk Mailer, Enclose (1) One 1.2 or 1.44 Formatted Floppy Disk and a Postage Paid Return Envelope and Send To:

Daniel J. Meredith N7MRP
P.O. Box 44563
Phoenix, Az 85064-4563

Enjoy TPK-182!!!

73 de Dan N7MRP@N7MRP.AZ.USA.NA
White Page-World Server Station...

----- \-----/ -----
Arizona Network Intertie Group
"Serving Az's Digital Needs Since 1993"

Daniel J. Meredith - N7MRP	Voice: +1-602-809-7384
P.O. Box 44563	Fax : +1-602-956-2566
Phoenix, Arizona	BBS : +1-602-912-0225
85064-4563	

List Owner: F6fbb-List@Stat.Com
Arizona Amateur Radio Packet Coordinator

Date: 1 Nov 1994 22:39:46 GMT
From: karn@unix.ka9q.ampr.org (Phil Karn)

References<38rave\$N1a@hpbab.wv> <391b4f\$t7g@qualcomm.com>,
<395vb8\$h2c@hpbab.wv.mentorg.COM>
Reply-To: karn@servo.qualcomm.com
Subject: Re: using passwords over packet

In article <395vb8\$h2c@hpbab.wv.mentorg.COM>, hanko@wv.mentorg.com (Hank Oredson) writes:

|> |> it provides an authentication-only mode that would make it legal to use
|> |> over amateur packet radio.
|>
|> This is interesting work.
|> I wonder if we would need changes to the rules to use this protocol?
|> If the intent is not to "obscure content", then we probably do not
|> need rule changes, but if the intent IS to "obscure content", we might.

|>
|> Anyone have some insight into this issue?

I think I do. It's really very simple; if the protocol does not hide the user data but merely authenticates it, then it is legal under Part 97 even if the authentication is based on strong cryptographic techniques. No rule changes or waivers should be required.

I think this is true even if the authentication cannot be verified by a third party who does not know the shared secret key. This is admittedly a disadvantage of using a keyed one-way hash function in the way I've described. But I think it's more than offset by the considerably improved performance as compared with RSA signing each and every packet (which could be verified by anyone with the corresponding public key).

Phil

Date: 2 Nov 1994 00:36:39 GMT
From: hanko@wv.mentorg.com (Hank Oredson)

References<CyCEKB.7Hq@wang.com> <1994Oct27.220625.12814@ve6mgs.ampr.org>,
<CyDz93.5Iy@wang.com>
Reply-To: Hank_Oredson@mentorg.com
Subject: Re: NoCal 00 goes after Packet BULletins

In article <CyDz93.5Iy@wang.com>, dbushong@wang.com (Dave Bushong) writes:

|> mark@ve6mgs.ampr.org (Mark G. Salyzyn) writes:

|>

|> >dbushong@wang.com (Dave Bushong) writes:

|>

|> >> (b) An amateur station shall not engage in any form of

|> >>broadcasting, nor may an amateur station transmit one-way

|> >>communications except as specifically provided in these rules;

|>

|> >AX.25 is specifically allowed for in the rules ...

|>

|> Where?

|>

|> There is a mention of AX.25 in the section about station control

|> (97.109(d)), talking about re-transmitting signals unattended above 50

|> MHz, but I didn't see anything about "one-way communications." Did I

|> miss that?

Nope, because AX.25, by it's very nature, is not used for one-way communications. Oh yes, you might say, it COULD be

(there are UI frames!), but it's not.

So again someone is looking at the wrong portion of the rules.

These are not one-way communications we are dealing with.

... Hank

--

Hank Oredson @ Mentor Graphics	Library Operations
Internet : hank_oredson@mentorg.com	"Parts 'R Us!"
Amateur Radio: WORLI@WORLI.OR.USA.NOAM	

End of Ham-Digital Digest V94 #362
